

## **Joannah Metz**

**University of Illinois at Urbana-Champaign**  
Urbana, IL

**Engineering Physics, Geology, and  
Astronomy**  
Bachelor of Science, May 2004

**NASA Academy Research Project:  
Educational Activities in Astrobiology**

Principal Investigator: Dr. David Morrison



### **Education:**

I will graduate in May 2004 from the University of Illinois at Urbana-Champaign with separate Bachelor's degrees in Engineering Physics, Astronomy, and Geology. I also studied abroad for a year at the University of Manchester in Manchester, England.

In October 2004, after completing the NASA Academy, I will head to the Scott Polar Research Institute at the University of Cambridge, Cambridge, England where a Gates Cambridge Scholarship will support my enrollment in the M. Phil. program in Polar Studies. I'm interested in studying Earth's polar regions because they provide a particularly good analog environment to Mars. By studying the factors affecting sedimentation in and near Earth's polar regions, it is possible to reconstruct some of the past environments in the coldest regions of Earth, which would be a springboard to my future studies of paleoclimates on Mars.

In September 2005, I will enroll in the Ph.D. program in Earth, Atmospheric, and Planetary Sciences at the Massachusetts Institute of Technology, where I hope to continue studies related to Astrobiology and Mars.

### **Experience:**

The majority of my free time over the past couple of years has been dedicated to my research on the hot springs at Mammoth Hot Springs in Yellowstone National Park. As a part of my senior thesis, I studied the physical and biological parameters affecting carbonate precipitation in the hot springs and even built an artificial hot spring in our lab. In March of 2000 and 2001, as president of the Float'n Illini Microgravity Research

Team, I took part in NASA's Reduced Gravity Student Flight Opportunities Program at Johnson Space Center. I was one of four team members selected to fly our experiment on rotational fluid dynamics aboard the KC-135. I have also completed several NASA summer programs, including the Spaceflight and Life Sciences Training Program at KSC in the summer of 2000 and the Planetary Geology and Geophysics Program at Ames in the summer of 2001. I also completed an REU at the Harvard-Smithsonian Center for Astrophysics in the summer of 2002.

I have worked in the physics department at my university as a teaching assistant for the introductory electricity and magnetism course and also serve as a volunteer tutor through Tau Beta Pi.

**Extra-curricular Activities:**

In my spare time, I practice martial arts and hold a brown belt in Kuk Sool Won, a Korean martial art. I also enjoy hiking, camping, and scuba diving, although the opportunities for these activities are somewhat limited in central Illinois. I love stargazing, and my friends and I will often take a telescope out to the astronomy dark site and spend a night staring up at the sky. Swing dancing is another of my favorite past times, and I like to head out to the local swing dances whenever I get the chance. I also love to travel, and have traveled around the U.S. and Europe and am especially keen to check out museums and archeological sites while traveling.

